

LISTING OF THE CLAIMS:

This listing of the claims will replace all prior versions and listings of claims in the Application.

1-24. (Cancelled)

25. (Currently Amended) A system for modeling a sound field produced by a sound source that generates a radiating sound field that comprises predetermined parameters, the system comprising:

N transducers, arranged to at least partially surround the sound source, for capturing the sound field and generating N signals that correspond to the captured sound field;

means for modeling the sound field based on at least some of the N signals, including selected ones of the predetermined parameters; ~~and~~

means for selectively modifying one or more parameters of selected ones of the N signals to produce a modified sound field; and

M transducers, arranged to at least partially surround an equivalent sound source, for emitting the modified sound field, the M transducers being oriented away from the equivalent sound source so as to emit the modified sound field outwardly from the equivalent sound source.

26. (Currently Amended) The system of claim 25, further comprising driver means for receiving N signals corresponding to the modified sound field and generating M

signals to drive the driving a reproduction of the modified sound field by the M transducers.

27. (Currently Amended) The system of claim 26, wherein the driver means is operable to selectively modify one or more of the parameters of selected ones of the N signals that correspond to the modified sound field to generate the M signals.

28. (Currently Amended) The system of claim 26, wherein the driver means is operable to independently modify one or more parameters of the selected ones of the N signals that correspond to the modified sound field to generate the M signals.

29. (Previously Presented) The system of claim 25, wherein the means for selectively modifying is operable to independently modify one or more parameters of the selected ones of the N signals.

30. (Previously Presented) The system of claim 25, further comprising storing means for storing the modeled sound field.

31. (Currently Amended) The system of claim 25, wherein M equals N ~~further comprising storing means for storing the modeled sound field.~~

32. (Previously Presented) The system of claim 26, further comprising storing means for storing the modified sound field, wherein the driver means receives the N signals corresponding to the modified sound field from the storing means.

33. (Previously Presented) The system of claim 25, wherein the means for selectively modifying is operable to modify one or more parameters of the selected ones of the N signals based on at least one of a user preference, a loudspeaker compatibility, a predetermined module, and a preferred output arrangement.

34. (Previously Presented) The system of claim 28, wherein the driver means is operable to modify one or more parameters of the selected ones of the N signals corresponding to the modified sound field based on at least one of a user preference a loudspeaker compatibility, a predetermined module, and a preferred output arrangement.

35. (Previously Presented) The system of claim 25, wherein the means for selectively modifying is operable to modify one or more parameters of the selected ones of the N signals based on at least one of a recording environment and a playback environment.

36. (Previously Presented) The system of claim 28, wherein the driver means is operable to modify one or more parameters of the selected ones of the N signals

corresponding to the modified sound field based on at least one of a recording environment and a playback environment.

37. (Currently Amended) A method for modeling a sound field generated by a sound source that generates a radiating sound field that comprises one or more predetermined parameters, the method comprising:

capturing the sound field using N transducers that are arranged to at least partially surround the sound source;

generating N signals that correspond to the captured sound field;

modeling the sound field based on at least some of the N signals, including selected ones of the predetermined parameters; ~~and~~

modifying one or more parameters of selected ones of the N signals to produce a modified sound field; and

emitting the modified sound field using M transducers that are arranged to at least partially surround an equivalent sound source, the M transducers being oriented away from the equivalent sound source so as to emit the modified sound field outwardly from the equivalent sound source.

38. (Currently Amended) The method of claim 37, further comprising:

receiving N signals corresponding to the modified sound field; and

driving ~~a reproduction~~ the emission of the modified sound field by the M transducers based on the received N signals.

39. (Previously Presented) The method of claim 38, further comprising selectively and independently modifying one or more parameters of selected ones of the received N signals that correspond to the modified sound field.

40. (Previously Presented) The method of claim 37, further comprising storing the modeled sound field.

41. (Previously Presented) The method of claim 37, further comprising storing the modified sound field.

42. (Previously Presented) The method of claim 37, wherein selectively modifying one or more parameters of the selected ones of the N signals comprises independently modifying one or more parameters of the selected ones of the N signals.

43. (Previously Presented) The method of claim 37, wherein modifying one or more parameters of the selected ones of the N signals comprises modifying one or more parameters of the selected ones of the N signals based on at least one of a user preference, a loudspeaker compatibility, a predetermined module, and a preferred output arrangement.

44. (Previously Presented) The method of claim 39, wherein modifying one or more parameters of the selected ones of the received N signals corresponding to the modified sound field comprises modifying one or more parameters of the selected ones of the

received N signals corresponding to the modified sound field based on at least one of a user preference, a loudspeaker compatibility, a predetermined module, and a preferred output arrangement.

45. (Previously Presented) The method of claim 37, wherein modifying one or more parameters of the selected ones of the N signals comprises modifying one or more parameters of the selected ones of the N signals based on at least one of a recording environment and a playback environment.

46. (Previously Presented) The method of claim 39, wherein modifying one or more parameters of the selected ones of the received N signals corresponding to the modified sound field comprises modifying one or more parameters of the selected ones of the N signals corresponding to the modified sound field based on at least one of a recording environment and a playback environment.

47. (New) The method of claim 37, wherein M equals N.